

things in the geography of Yorkshire to be accounted  
for yet; the landscape of the country for instance.  
Yorkshire people rejoice in the fact that there is no  
English country which presents greater varieties  
of picturesque landscapes. <sup>than their own</sup> Now what constitutes  
this quality which we call picturesque when it is  
not commonly, the juxtaposition of the clear  
& wild with the soft & lovely? Such juxtaposition  
is continual occurrence in Yorkshire.  
every brown bare moor abuts on a smiling  
valley. the softness of the valley is broken by a  
lineation - 'scar' - bare & forbidding as a feudal  
castle. again, you have a wide stretch of  
champaign <sup>gentle</sup> country whose beauty lies in its fertility.  
Here, ~~you have~~ <sup>unbroken</sup> the long ~~level~~ <sup>unbroken</sup> lines of the fells,  
straight as if cut. of the T. squares; here,  
the soft glowing curves of the chalk hills. It  
is a case of what is bred in the bone must come  
out in the flesh. the character of the landscape  
depends upon the nature of the surface rock; it  
varies - of the landscape, upon the fact <sup>sometimes</sup> that  
very various strata come to the surface, in  
curious & sudden alternation. It is impossible  
to get a lucid idea of the geography & landscape  
of Yorkshire without some knowledge of its geological  
history, the story of its making; & it is only as  
we know something of the structure of the several  
rocks, & their behaviour under atmospheric influences,  
that we have any explanation to offer of the distinctive  
features of Yorkshire - fell & gorge, cavern, cove  
& sea.

Perhaps nowhere in the world is the geological history  
 of a region more distinctively marked than in Yorkshire.  
 But as the pages, with clear in the colouring &  
 outlines of the several landscapes; & what is more,  
 the pages are arranged in order of time, beginning  
 at the first, & going on, in regular order, to the

East.

First in order of time, <sup>highest</sup> ~~first~~ in order of elevation.

We have the Weather Moors, the Pennine Chain  
 of the geographers. A more or less snow-capped  
 tract some ninety miles in length, with  
 an average breadth of thirty miles. We appear  
 the patriarchs of Yorkshire rocks - the Silurian  
 & Carboniferous strata.

Then, stretching through nearly the whole length  
 of the country, but with a breadth of no more  
 than four or five miles, we have a band of  
 Permian rocks. Where we, travelling eastward,  
 have come suddenly on the vegetation about  
 Knaresborough, for instance, we now have  
 noticeable a difference in the landscape follows  
 the appearance of these new strata.

Next succeeds the broad Val of York,  
 where the original rocks (i.e., Lias series)  
 are overlaid with the deposits of the river  
 (mud, peat, silt, sand, gravel, clay) that  
 it is these which give character to the landscape.  
 The whole plain is an alluvial valley.

Further, the bands of distention strata have  
 occupied the whole length of the country from  
 north to south; but eastern Yorkshire did  
 not appear all at once under the same  
 conditions: traverse the country from Redcar  
 to Spurn Head, you find <sup>pass through</sup> yourself in <sup>different</sup> <sup>regions</sup>

the beautiful dunes of the West & North tidings, we may believe that the rivers have earned them out as truly as that they have embellished them.

"Rivers run in valleys which the sea made for them." said Professor Phillips with reference to the Yorkshire dales: This distinction of an able geologist who has done much for Yorkshire has proved ~~exceedingly~~ embarrassing to the succeeding geographers & geologists. ~~It has been~~ <sup>the argument</sup> ~~undoubtedly~~ <sup>But?</sup> to describe Yorkshire. After making full allowance for the effects of subsidence & upheaval, after leaving out of account the local rock scenery as due to the presence of the 'Craven fault', it may yet be received of the Yorkshire dales, as of other river valleys, "That," in the words of Kewley, "there has been thought most upon the subject - believe... That, in point of fact, the present rivers have gradually scooped out their own channels, that our river valleys are, mainly, the result of work performed by rain, rivers, & similar agents of denudation."

We are arriving at a few of the broad principles which determine the geography of Yorkshire. We have seen that the ~~surface~~ <sup>sea</sup> not only defines but determines the contours of the land. That the <sup>which</sup> mountains <sup>give both birth & direction</sup> to the rivers are so placed as to enrich Yorkshire with a noble river system: that the rivers themselves have carved out the habitable valleys, & thus have determined the location of the <sup>city & village</sup> population.

Geological Sketch.  
But we must go further: there are a thousand things



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So, in the Western Shores, we have the great watershed of northern England, the basin of 'heaven-water' drainage. Then the rivers of Yorkshire, with very trifling exceptions, follow their waters. Here we have a complete river system, a main stream with many affluents discharging almost the whole drainage of the country into a single noble estuary, & all this, within the limits of Yorkshire itself. Its teachers of geography could not conspicuously have a better illustration of a river basin, an idea which is a key to the comprehension of much geography. It would be easy to show, too, that civilisation, progress, has followed the courses of the rivers, that in their valleys were planted the great religious houses, the centres of medieval civilisation, & in their valleys are the great industrial centres of today. But even so, we have not exhausted the meaning of those waving irregular lines upon the map all converging towards the central streams. It is not too much to say that its rivers have made Yorkshire, that they have literally scooped out the habitable places of the earth, & then have spread them into the alluvial soil which ~~should make them capable of bearing~~ food for man & beast. This is true with limitations of the great central valley.

We doubt there was low land there to begin with; a wide plain, if not a valley, but of the

Now can look carefully at the map of Yorkshire  
 without being struck by its almost-increased completeness  
 & self-dependence by the singular variety of its  
 features. Yorkshire has no considerable lakes,  
 but with this exception, there is hardly a feature  
 of land conformation which it does not afford  
 illustrations. There is a great mountain  
 region filling up the west; occupying  
 a third of the country; then succeeds  
 a great alluvial plain, the valley of the  
 Ouse; then, still to the east, two distinct  
 hill countries of different characters, the  
 one to the north-east, the other to the  
 south-east; & lastly, beyond the south-eastern  
 hills, is a low maritime plain. Wide valleys  
 intersect the hill & mountain regions, as  
 the Vale of Pickering, skirting the Eastern  
 moorlands from the chalk Wolds; &  
 Ribblesdale, dividing the mountainous  
 mass of the west into two distinct  
 regions, north-west, & south-west. Besides  
 these wider valleys, innumerable 'dells'  
 intersect the western & the north-eastern  
 highlands, forming the distinctive  
 Beauty & Coast of Yorkshire.  
 Then, upon the coast, it is not only that its  
 long seaboard on the North Sea enables Yorkshire  
 to command the trade of the Baltic, the  
 fishing of the northern seas, that it has its  
 great

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fect into lesser resorts; its green & fruitful  
places, rather than ambitious, but perhaps  
more delightful health resorts; it is not only  
that here the geologist finds the rocks of which  
Strata laid ~~down~~ for his examination so  
that he can read as in a book the history  
of this part of Yorkshire; that fossils are  
in some districts seen broadcast, so  
that you may hear the fisher children of  
Wharfedale talk to their mates about the 'ammonites'  
they have found; that, here, the action  
of the great natural forces has produced  
the beautiful & rare natural curiosities of  
Saltaire; but - here the very history of  
world-making may be studied. Here you  
may see almost visibly in action the  
two great processes of carrying away the  
old, <sup>of carrying down the</sup> ~~of carrying down the~~ new, ~~and~~ which the  
horizontal contours of the land is due.  
But, interesting & picturesque as are its elevation  
its coast; it is the river system of  
Yorkshire which marks it out as a  
distinct province, a country within  
a country. The ecclesiastical province of York  
was it no more, would be an interesting  
historical remains, reminding us that  
York has ever been the centre of the history  
of the north which has by no means run  
upon the same lines as that of the south;  
nor would it be difficult to show that York  
continued to be the northern capital until  
the rise of the great manufacturing cities  
in consequence of its situation at the head of a  
great & unobstructed river system.



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It being a saying of the time, that, all the pold was  
clothed in English wool, woven in Handers.

While the height ~~of the~~ afforded pasture, the  
valleys of the Wharfe & its feeders must have been  
and doing in endless  
~~one unbroken long stretch of cornfields & meadows.~~

land. An entry in the computes of the House as  
quoted by J. Whitaker.

gives 1,000 pence paid to  
(about 100 pence for money)  
reapers for getting in the corn & a penning berry  
while at the present time a flock of  
the days wage was paid out to 1000 labourers.  
corn is a rare sight in Upper Wharfedale. J. Whitaker supposes  
the manors of the entry.  
that the harvest ~~was~~ to have been gathered in

a single day, 1000 men being hurried into  
the fields; but as ~~the present time~~ it would not be

easy to collect such a body in the scattered  
village of the dales. ~~the~~ harvest is equally  
surprising whether ~~200 men~~ carried by  
pipe days, or by ~~thousand~~ carried in  
the ~~canons of~~ Wotton were not a learned patronage.

During forty years, the purchase of poetry in book-  
~~shops~~ <sup>Rever</sup> Lombard's Book of Sentences - is entered in  
their accounts; nor did they spend much on

materials for illumination. Their literary  
Credit rests on two or three Mss. preserved in the  
Abbey; - A treatise <sup>in verse</sup> on the virtues of Mercurie in  
turning the baser metals into gold; another on the  
stars, written in Latin, & savouring more astrology  
than of our lawful science; Sequite marvellous  
dissertation upon the substances whereof the human  
body consists: it is probable that these intellectual  
efforts belong to the period of their intercourse with  
the Shepherd Lord of Shipton. ~~from the~~

The history of the House is an unventured

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Country was thickly overlaid with millstone grit & this millstone grit - the limestone below it to a great depth, has been removed by denudation, worn away greatly by the rivers in the act of carving out their valleys. The limestone has, in fact, been uncovered by the rivers assisted by atmospheric denudation, & the depth to which the limestone itself has been removed may be guessed at from the height of the limestone cliffs left standing on the margins of the valleys. At the same time, it is not safe to set down all the ~~best~~ <sup>best</sup> scenery of the limestone country as the result of denudation. The Craven fault, a great break in the limestone, into the origin of which there is no space to enter, crosses Craven, & gives origin to some of its most magnificent rock scenery - Gordale Scar, Malham Cove, the Scars of Giggleswick.

Next, to return to the millstone grit - the whole of the Carboniferous series to which it belongs, under what geological considerations were the rocks laid down, covering ~~the~~ the whole area, & still ~~occupying~~ <sup>occupying</sup> ~~any~~ reaching through the whole length of the country from north to south, & occupying some third of its width to the south, & perhaps, a fourth to the north? There, the millstone grit & the coal measures, are fresh-water deposits - rich in fossils of land plants & of fresh-water shells.

We must imagine the area of the country occupied by a shallow sea or lake or inland sea receiving many



Napthomest

many streams. Each stream brought down in its  
course laid down at its mouth, much sediment,  
sometimes mud, sometimes sand, here, coarse  
heavy sand deposited at the mouth of the  
river, & again, fine sand, carried per os  
into the lake. Here we have the material for various  
strata. sandstones, shales & coarse grits, each  
becoming dry land in consequence of an  
exceedingly gradual elevation, & by a gradual  
subsidence, becoming again the bed of an  
inland sea, to receive new deposits which  
should, in their turn become dry land.

The millstone grits, which cover a larger area of  
Yorkshire than any other rock, are the elevated  
sand banks <sup>formed</sup> of the coarse sand & grit we have  
seen deposited in that inland lake. In  
the whole of western Yorkshire, with the exception  
of the Craven district, we get the scenery  
proper to the grit: bold escarpments & rock  
masses, as at Otley Chevin, the Cow  
& Calton Runniboll's Moor, deep gorges, &  
fens, with woody sides, the timber rather  
stunted but various, oak copses being  
perhaps the most common: wide peat covered  
moors & heaths, sometimes, bogs, sometimes  
with huge boulders scattered over them,  
sometimes weathered into extraordinary  
shapes, the laminae of gneiss, yielding little  
to the farmer, even in the lowlands - you  
come across miserable patches of musk  
rats in November - such are the main features  
of the grit country, which is yet not without its attractions  
give him a delightful one & a paper on the uplands.

